

# Notice of Allowability

Application No.

09/724,615

Examiner

Monique R Jackson

Applicant(s)

STROBEL ET AL.

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 7/29/03.
  2. ☒ The allowed claim(s) is/are 1-18.
  3. ☒ The drawings filed on 28 November 2000 are accepted by the Examiner.
  4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All b) ☐ Some\* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
    - (a) ☐ The translation of the foreign language provisional application has been received.
  6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |  |   |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____.            |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____  | 7 <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other  |

1. The following is an examiner's statement of reasons for allowance: The closest prior art Strobel et al (USPN 5,900,317) teaches a method for modifying the surface of a polymeric substrate by exposing the surface to a flame, where the flame is supported by a fuel and oxidizer mixture that includes at least one silicon-containing compound introduced into the flame as a vapor and functioning as a fuel substitute, wherein the silicon-containing compound may be silylthioethers (*a sulfur-containing compound*) however, Strobel et al do not teach or render obvious that the fuel substitute is hydrogen sulfide, mercaptan, or a sulfur-containing compound that is a gas at room temperature and pressure wherein the Examiner has interpreted the term "at room temperature and pressure" to mean at a temperature of approximately 70°C and atmospheric pressure.
2. Further, with regards to the instant product, Angelopoulos et al (USPN 5,997,997), teaches a substrate comprising a polymeric dielectric surface that has been heat treated to provide oxidized sulfur-containing chemical groups and unoxidized sulfur-containing chemical groups on the dielectric surface. However, Angelopoulos et al does not teach or render obvious that the dielectric surface comprising the oxidized and unoxidized sulfur-containing chemical groups is flame treated or that the dielectric surface comprises at least one nitroso or nitrosoamine chemical group and at least one oxidized sulfur-containing chemical group.
3. Further, with regards to the flame treating process, the closest prior art, Asakura et al, teaches various methods of surface treating a polymeric substrate including corona discharge treatment, low temperature plasma treatment, and flame treatment, wherein the treatment process can be performed in various atmospheres utilizing various gases including sulfur dioxide and hydrogen sulfide. However, as argued by the Applicant, it is apparent that the disclosed gases

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correspond to the atmosphere in which the treatment process is conducted not the gases utilized to fuel the flame in a flame treatment process, particularly given that methane, one of the most common fuel gases utilized in the art, is not disclosed. Therefore, it would not have been obvious to one skilled in the art at the time of the invention based on the invention taught by Asakura et al to utilize a sulfur containing compound in conjunction with a flame treating process to treat the surface of a polymeric substrate, nor would it have been obvious that the heat treated product produced by Asakura et al would have the same structure as the instant invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson  
Primary Examiner  
Technology Center 1700  
December 14, 2003

**MONIQUE R. JACKSON**  
**PRIMARY EXAMINER**